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COMPLETE SPECIFICATION.

Improvements in Artificial Teeth.

We ELLIOT HAMILTON SHERMAN, of the city of Grand Rapids, in the county of Kent, and State of Michigan, one of the United States of America, Dentist, and JOHN BYRON PARKER, of the same place, Dentist, do hereby declare the nature of our invention for IMPROVEMENTS IN ARTIFICIAL TEETH, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

Our invention relates to improvements in artificial teeth which are usually made of porcelain and attached to a support of metal or other suitable material, which is in turn secured within the mouth in some suitable manner.

10 Heretofore such teeth have consisted of a single piece of porcelain such as are known as plate teeth, and shells or facings.

Plate teeth are solid pieces of porcelain of the size and shape of natural teeth and are attached to a suitable support by means of pins projecting from their lingual or palatine surfaces. Being necessarily bulky to give strength they permit the
15 insertion of but little supporting material between themselves and the gums, so that they cannot be used for the so-called bridge-work, for the reason that the strain of mastication falls nearly or quite in the direction of the plane of the adjacent surfaces of the tooth and its support, there is great liability of breaking the pins which secure the tooth to its support.

20 Shells or facings have no crowns or grinding surfaces of their own and are intended and adapted to be provided with the same of metal, which is integral with and a part of the backing or support. This has been necessary in order to get sufficient strength of supporting material to form a bridge that would not break under the pressure of mastication.

25 As their name implies they are merely an outer facing of porcelain, in a single piece, adapted to fasten to a tooth otherwise made of metal.

These metallic crowns are more expensive than porcelain, less suitable as a grinding surface, and do not resemble the natural teeth as do the porcelain.

The objects of our invention are : To provide a tooth less liable to be separated
30 from its support, also so adapted that both the crown or grinding surface and shell or outer surface may be made of porcelain and at the same time afford room for a support

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Sherman & Parker's Improvements in Artificial Teeth.

sufficiently strong to constitute a suitable bridge that will not be easily broken : also to provide a structure that when complete will be materially cheaper and present a more suitable grinding surface, and a more natural and pleasing appearance in the mouth.

Our invention consists in providing a tooth of two separate pieces of porcelain 5 consisting of an outer part or facing, and a crown or grinding surface, adjusted at, or nearly at, right angles to each other and separately attached to a suitable support consisting of a bridge or plate of suitable material as hereinafter more fully described.

In the accompanying drawing,

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Figure 1, represents the detached shell and crown of our improved tooth.

Figure 2, the same attached to a portion of a bridge or plate.

Figure 3, an elevation of the same as Figure 2, viewed from the face of the shell, and

Figure 4, a vertical section on the line X, X, of Figure 3.

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A, is the shell, and, B, the crown of the tooth, each being a separate piece of porcelain, and provided with the usual pins, C, or other suitable fastenings for attaching them to the support, D, which may be a plate, or bridge of any suitable material, and secured within the mouth in any convenient manner. The surface of the crown, B, which is in contact with the support, D, is at right angles, as near as may be, to the 20 direction of the pressure upon said crown, therefore there is but little tendency to break said crown or separate it from the support, D.

By the described construction we are also able to adjust the position of the crown relative to the shell, and adapt the tooth to properly articulate with the antagonizing teeth, without grinding its outer surface.

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We also secure within the angle formed by the described crown and shell, sufficient room to form a support strong enough to constitute a suitable bridge. This support may extend between the adjacent beveled surfaces of the parts, A, and B, thus making a perfect joint, and support for the part, B. Said support may be made of other suitable material than metal, such for example as celluloid, or vulcanite, and can be 30 adapted to plate or bridge work as occasion requires.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is :—

1. An artificial tooth consisting of a separate outer part or facing, and a crown or 35 grinding surface both of porcelain, adjusted substantially at right angles to each other, and separately attached to a suitable support substantially as hereinbefore described.

2. As an article of manufacture : porcelain veneers in pairs, consisting of a crown and an outer facing each provided with means of independent attachment to a common 40 support, and when so attached constituting in conjunction with such support an artificial tooth substantially as hereinbefore described.

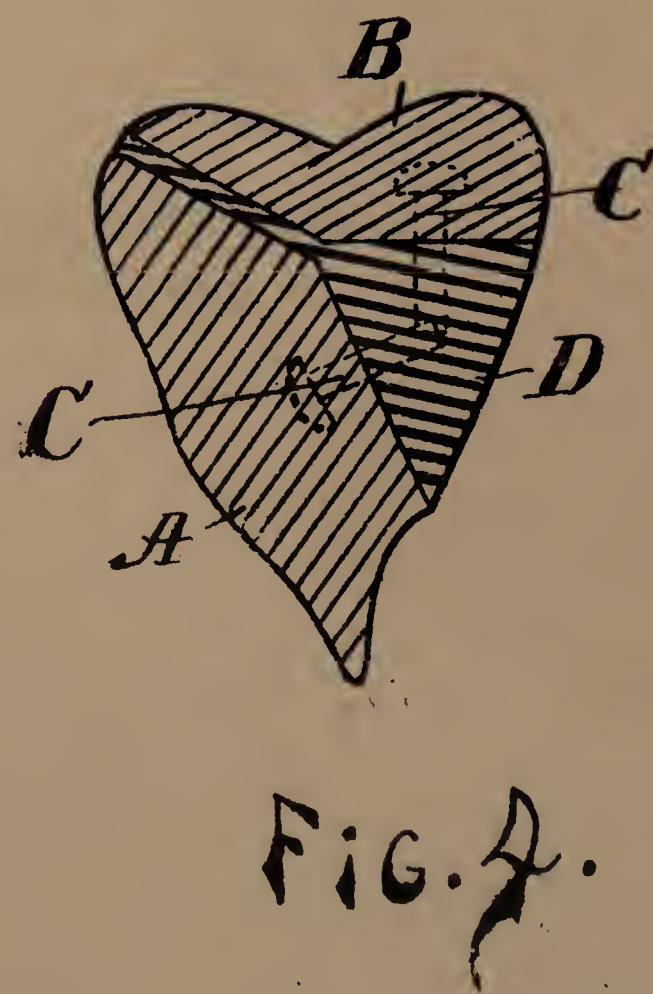
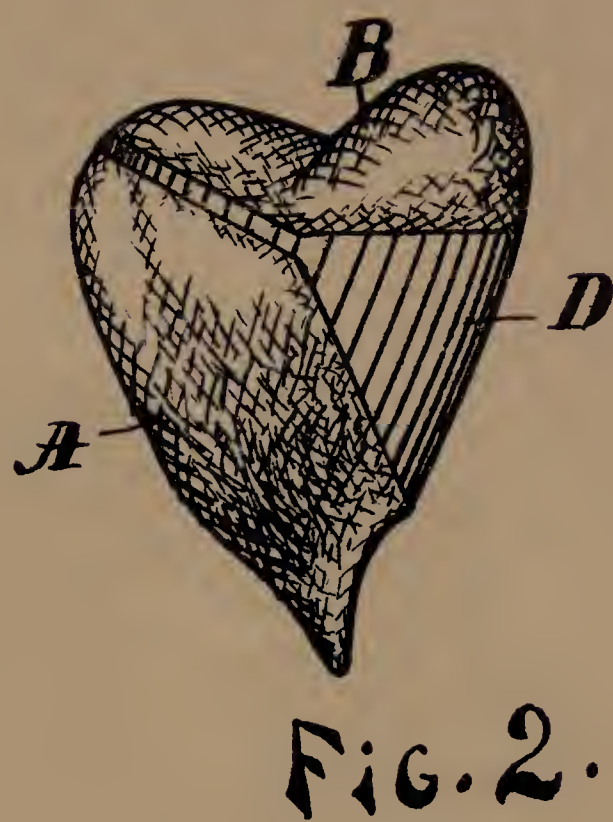
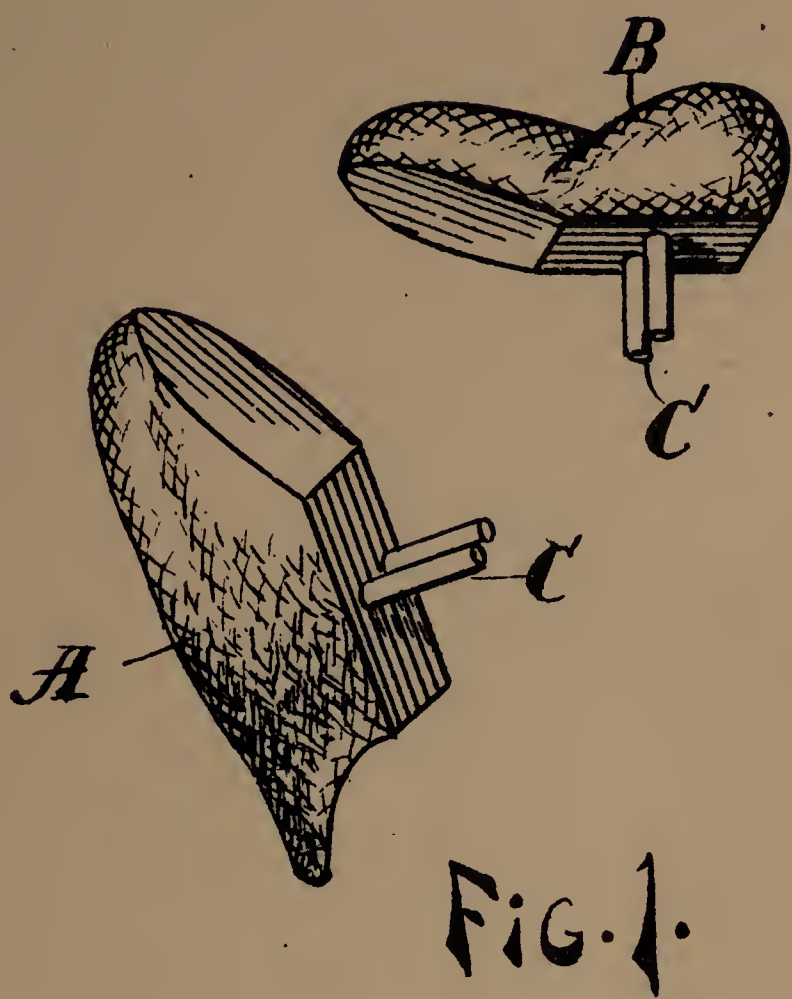
Dated this 5th day of December 1887.

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[This Drawing is a full-size reproduction of the Original.]

